

Material and Supplied Management in Higher Education of Ethiopia

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Abstract

The paper is a scrupulous review of existing literature and research finding on material supply management in higher education. Relevant documents were thoroughly revisited and amalgamated into a manageable way to comprehensively bequeath empirical knowledge and an authentic picture of how material management looks like in higher education. Finally, the paper concluded that despite insufficient funding and ineffective system quality there are also high corruption and managerial negligence from the side of the institutions. Moreover, poor procurement planning, material inflow and out-follow laxity and lack of potential supplier identification were also seen as the major procurement defect.

Keywords

Supply Management, Higher Education, Material Supply

1. Introduction

Higher education institutions in Ethiopia traced back in 1950 upon the establishment of present-day Addis Ababa University as a college. Currently, there are over 40 universities expedited countrywide with a common mission of educational service delivery, research, explorations and academic publicity, instantly the institutions are hectic in program diversifications and multidisciplinary training geared towards enhancing national economic growth and strategic development for gross transformation and renaissance.

A bigger chunk of public finance was devoted to education sectors of which more than fifty percent was allocated to tertiary education. In Ethiopia from the total public expenditure, much percent is used by higher education for the procurement of goods and services (Tesfahun, 2011). According to (Hankebo, 2019),

procurement is a means for obtaining goods and services such as consultant work, task performance for quality anticipation, profit or new change through purchasing, hiring or any other contractual agreement between the parties of concern.

The Ethiopian Federal Government Procurement and Property Administration Proclamation No.649/2009 also defined procurement as a mean of obtaining goods and service, it further elaborated in its article 5 sub-article 4 which states that public procurements and property managers should ensure the value for money in the use of public procurements, accountability for any decision taken as well as careful handling, use and management of public property (Hankebo, 2019).

Ethiopian high educational institutions are not exceptional to the national procurement policies and laws applicable to the acquirement, utilization and management of public properties. Proclamation No.650/2009, stated the autonomy and administrative freelance of these organizations while also clearly underscoring the degree of necessities expected from the higher education to be in line with the national procurement laws. Therefore, every public institution should exercise its self-governing autonomy for public procurement and administration in a way that is lawful and in line with national procurement policy and be transparent to the public gaze.

1.1. Statement of the Problem

Third world nations mainly in African nation's public welfare and property administrations such as resource management and proper planning for potential suppliers is not lawfully handled. Awoke (2020) stated that high cost, poor inventory control, fraud and kick-back based relationship between suppliers and the public body, fault in supplier selection and lack of standardized quality control are the major hurdles in Ethiopia's public universities. In many African countries, application to effective management of public resources was not given enough attention (Basheka, 2009).

In Ethiopia, around 40% of the country's GDP goes to universities however, there is no effective implementation and practice of public property management whilst every year 10 - 100 millions ETB has lost in universities due to none transparent material inflow and management (Tirualem & Amanpreet, 2020). Suppliers' recruitment is mainly upon kinship or material benefit by the public body. Material welfare and proper utilization after arrival is highly negligible, bid document preparation and its competitions are for mere formality than potential tender selections, awarding price are three fold higher than the actual market price and material qualities are terribly squatted.

1.2. Objective of the Study

The main objective of the paper is to promptly snapshot the existing bodies of literature on Material and supply management practice by the higher education

in Ethiopia/public universities.

1.3. Methods

The paper exploits a conscientious review of the existing bodies of research findings to sustain relevant data and came across the current status of higher education's materials and supply managements. An effective and well-conducted review as a research method creates a firm foundation for advancing knowledge and facilitating theory development (Webster & Watson, 2002). Literature review is therefore an excellent method of synthesizing diverse research findings into a single nutshell to uncover the areas where more research is needed. The aim of a regimented review is to identify all empirical evidence that fits the pre-specified inclusion criteria to answer a particular research objective or hypothesis (Snyder, 2019). Thus through this review as the foundation for this study, the paper had identified how material and supply management had taken place in higher education, the major discrepancy and deviating gap from public procurement and property administration proclamations. Review result was synthesized, contextualized and conclusion was forwarded.

2. Review of Literature

2.1. Material and Supply Management

Material and supply management are intertwined activities that encompasses the coordination, planning for material supplier, purchasing, material shipments, storing and controlling as well as monitoring of material movement to their disposal, in order to ensure a customer service satisfactions

Material management is the overall due discourses of properly handling material for organizational healthy functioning. Wanjogu, Iravo, & Arani (2015) stated that material management is all about acquisition, warehousing and supply of material items needed with the lowest price to ensure organizational operations and its bottom-line efficiency in material acquirement from the market stocks.

Material management is the notion that organization commitments and responsibilities are put in place in order to decide material acquirement schedule and potential supplier selection and properly store purchase items and dispense them timely (Wild, 2002). Ondiek (2009) similarly stated that material Management is any decision for material need which brings and held the responsibilities for purchasing, storing and material supply.

Wild (2002) states that materials management provides an integral system approach to the proper arrangement of materials activities and the total material price. Dobler and Burt (1996) insisted that the objectives of materials management is to make sure that the right material items are in place at the right purchase order, in the right time and at a manageable cost.

Chase, Jacobs, Aquilano, & Agarwal (2009) have elaborated that the international aim of material supply and management is to solve the organizational material deficit and avoid system service hurdles by controlling organizational

material follow and supplies communications networking. According to [Lenders \(1992\)](#) proper material management is in place only when a systematic material concern and monitoring is ensured through periodic material inventories.

[Pandey \(2007\)](#) explained that inventories of material fluctuations is to maintain smooth material follow and stocks transactional operations against the unpredictable risks of change in material and supply management. During material follow management many factors has be considered in advance such as material price, material qualities against the organizational items specification, communal financial risk between supplier and the parching entity as well as material sustainability ([Ogbadu, 2009](#)). Therefore, from the above definitions of material supply management the overall process of material follows can be categorized as follows (see [Figure 1](#)).

2.1.1. Materials Planning

Material planning is the first stage of material acquisition process and it is an estimate of material requirements by the organization which is also based on forecasting the amount of material to be purchased, duration within which these material shipments would be taken place, specifications of material items, preparations of material budgets and scheduling the material buy or sale date. Under the planning stage all the risks and anticipated contingency will be included and solutions to overcome them were drafted intentionally ahead of engagement.

There are varieties of factors which influence the material planning such as price trend, and business import policy or external service rendering. The educational organization's material supply management is centric to the notion of material forecasting which is being proverbial at the inceptions stage of the plan, thus material supply or in-follow forecast leads to list-down the material required, plan for delivery schedule until the material shipment or transportation and warehousing manner is clearly indicated at outset decency.

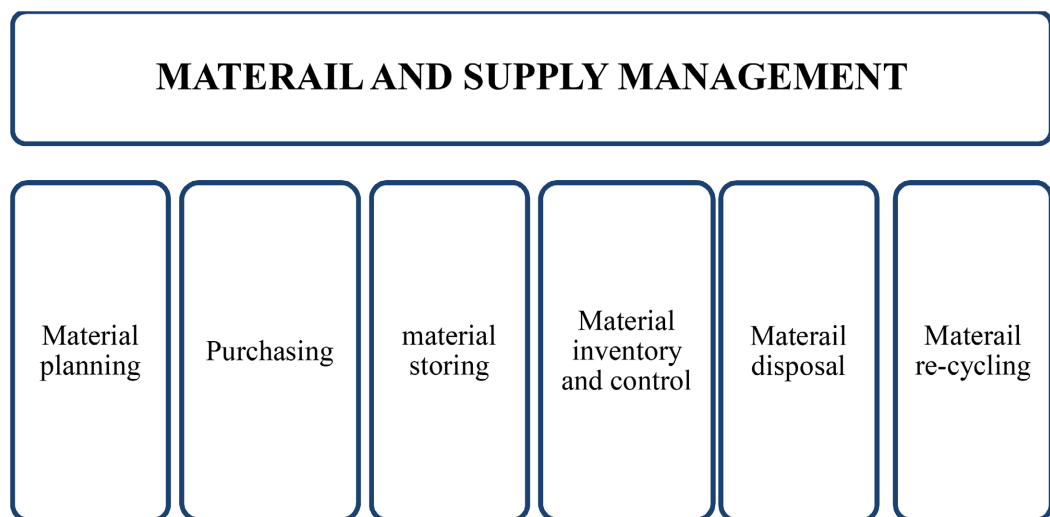


Figure 1. Educational supply chain management reviews ([Loon et al., 2017](#)).

2.1.2. Purchasing

it is a vital element of educational organizations’ material and supply management and it simply determines buying of material equipment that are required by the organizations, material in-follows and acquisitions varies with organizational complexity and its multi-tasking nature. Material and supply management effectiveness in the educational institutions is highly dependent on quality and item specification standards which in turn highly intertwined to the supplier source and time of material recipients. Therefore, the acquirement of quality material from a reliable supplier is profoundly important.

2.1.3. Material Supplier Selection

Is the selection of a potential supplier from pools of venders; in the higher educational institutions potential supplier selection is the responsibility of finance and procurement directorate also known as administration and development directorate. However, supplier selections process differs from organization to organizations, yet the following steps (see **Figure 2**) have got communal usage amongst the educational institutions.

2.1.4. Material Warehousing and Store Management

After material shipment and off-loading into the destination point for gradual use or material disposal such procedure is known as material warehousing or storing. Store plays a profoundly vital role for the utilization of supplied material to its maximum value to ascertain organizational goal achievement.

Store or organization warehouse provides a bottom-line condition for organization’s well being through the guardianship of material equipment and valuable items for organizational proper functioning and smooth operations, it’s through material storing that institutions can minimize material obsolescence, safeguard material negligence, whilst ensuring proper exploitation, material codifications and surplus via supply. Therefore, Material storing is the backbone of the overall supply management whilst it highlights stocks availabilities, consumption rate, supply incongruity, controlling measures intended and its degree of execution

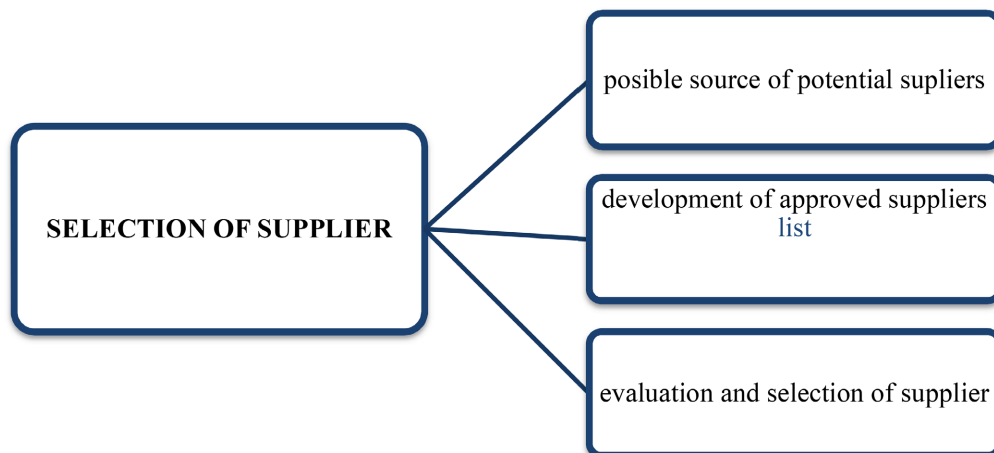


Figure 2. Potential supplier selections (Wanjogu, Iravo, & Arani, 2015).

for corrective action.

2.1.5. Store Management via Item Codification

Codification of items differ from organization to organization that each organization adhere particular kind of codification system, the main difference between organizations in codifying items lies the digitalization typologies of items, some organizations exercise a number representations of items in the store or even those at their disposal environment while some others exploit “Letters” representation of items in and outside the store, still some use a combinations of both number and letter representations of items.

In the educational institutions, codification is mainly both an abbreviated letters and numbers which could represent and identify items from other items of similar purpose and use. These number codes, Letters or blend of the two should be kept simple and understandable by all who engage and even indirect co-workers as well as end users beneficiaries. Codes/digits must be significant and well designed to represent some features of the items, if not wholly, however, codification should be squashed, consistent and flexible that tend to accommodate a new item specification.

2.1.6. Standardization Tool of Store Managements

Supplier tends to be more on profit oriented who can bestow material items that do not reflect the required quality and quantity by the receiving organization. Therefore, standardization is the process by which the receiving organization stipulates its material requirements in terms of quality, quantity, type, service durations, brand preference and this could be done through a bilateral agreement between the potential vender and the institution in need of material supply.

2.2. Material or Supplies Management in Ethiopia’s Higher Educations

Materials management is all about planning for acquisitions and flow of materials within the supply chain of the organizations. Material management views material flows as a system of organizational inflow and view the concept based on the potential advantages to meet the material need through planning and controlling of material goods from a supplier to stores or from production to dispatch, however the overall control would surely embrace for purchasing, stores, Inventory control production planning and physical distribution (Quayle, 2001).

In this regard, material management is planning to answer the organizational logistics and operational need, acquiring and storing the materials needed, moving in and moving out of the materials with restrictive and lawful procedures (controlling) as imposed by the institutions. Material management is simplistically viewed as the distribution planning and Control and logistics managements of the organizations (Benton, 2013). In Ethiopian universities ma-

material supplies and management is designated by a responsible sector called procurement and finance directorate whereby material management is all about Purchasing, material planning and scheduling, incoming traffic and inventory control, receiving and storing or warehousing the material for gradual use.

A study conducted by (Keitany, Daniel, & Salome, 2014) revealed that materials management is a tool to optimize performance in meeting customer service requirements at the same time adding to profitability by minimizing costs and making the best use of available resources. therefore, higher institutions uses a traditional way of material follows and management which halt the effective customer satisfactions and better service delivery and this is mainly ascribed to be due to poor planning and controlling of both material inflow and outflow for organizational goal achievement.

Educational supplies are all necessary equipment for organizational operations towards its mission statement and customer satisfactions. However, in case of supplied absent or insufficient the institutions tend to lose its client reliability and responsiveness in the volatile and competitive edge of business environment and that is more global.

Despite corruption and horrible material mismanagement throughout the system almost all of these institutions are engaging conventionalized material management of which materials planning and acquirements are considered at shadow price and informal bargaining. According to Benton (2013), materials management is a systematic coordination and control of the various material activities' inflow into the organization to ease effective functioning and better performance.

2.3. Physical Assets and Facilities Management in Ethiopian Higher Educations

Nowadays, technology had sophisticated human living and institutional service delivery without much fatigue and frustrations for when, how, to whom to reach and at what time, similarly institutional material acquirement, management and utilizations are also advanced. Higher education institutions had afforded high-tech service in the classroom, library, laboratory, student hostels and lounge, meal cafeteria, entertainment and extra-curricular activities. Thus through facilities administration higher institutions could oversee both quality and quantity of the available facilities and their wellbeing across institutions.

Higher Education Facilities management defined as strategically integrated approach to operating, maintaining, improving and adapting the buildings and supporting services of an organization in order to create an environment that strongly supports the primary objectives of that organization (Barret & Baldry, 2003). Thus proper physical managements encompass and contribute to the organizational reputation and quality of its services to target beneficiaries and the larger stakeholders and likewise in case of carelessness and mismanagement this could deform the organizational image and its public reputation. Okorie and

Uche (2004) indicated that physical assets and the facility environment also portray the quality of the institutions.

Ethiopian higher education/universities, were entitled to manage and properly utilize their institutional facilities and be responsible for public properties which in turn supposed to be the integral parts of missions statements, physical assets such as classrooms, students' hostels, staffs quarters, workshops centers, laboratory buildings, libraries, ICT centers, disability and rehabilitation centers, clinics, student service centers, staff residents, water taps and wells and other facilities such campus greenery, nursery gardens, chalk boards and white boards synergies, staff uniforms, office equipments, internet wires, latrines, showers, refreshments and other facilities that contribute to the organization's goal achievement.

Provisions of conducive learning environment are central to well managed physical assets and facilities managements which in turn improve the institutional acceptance and customer satisfaction and preference. Quality assurance of these facilities right from their planning, to development and utilization will ensure effective realization of set goals and objectives in higher education institutions (Hankebo, 2019). Price, Matzdorf, Smith, & Agahi (2003) had stated that for universities to be competitive and attract high caliber students must possess preferable courses and other quality attributes such learning facilities, good teaching scenario, quality inputs, cleanliness of accommodations and other extra-curricular activities. A study conducted by Cain and Reynolds (2006) sought that proper physical asset and facility managements is highly related to institutional image and students' choice.

Ethiopian universities have faced tremendous budget constraints with less autonomy to decide their own administrative affairs due government inference on academic issues, universities are not well-equipped and in it there were widespread quality issues and corruption, the less available facilities were poorly managed with high negligence, there is no proper asset management and disposal strategies, no quality inputs and consequently, universities remain weak in research output, quality education provisions as well as community service delivery. As stated by the new education Road map (P, 50) most universities are confronted with insufficient supplies of text and reference books, laboratory and workshops equipment and access to ICT facilities.

Moreover, despite insufficient physical and learning facilities universities lacks feasible strategies for material inflow management and resource utilizations to improve material purchase and procurement, proper warehousing and disposal, quality control and vigilant monitoring for material exploit in daily operations are not in place.

2.4. Procurement Management

Procurement is the act of purchasing goods and service for business purpose whereby procurement management is dealing with and managing external supplier's relationships to ensure organizational material needs are met at the best

possible time. Thus, higher education institutions seek out and lawfully satisfy their material need through finance and procurement directorate which is responsible for overseeing all the processes involved in acquiring market products, materials, goods and services needed for efficient business operations. Material supply management is a life blood of higher education service delivery whilst directly impact on organization's bottom-line and strategic operations.

Procurement is every activity associated with the acquisition and supply of goods, works and services from inception of an idea requiring and leading to a "buy" decision to the disposal of the goods or the conclusion of the service (Charles, 2007). Procurement is more than business necessity for higher education institutions in their way of optimizing to save money and its time value for future worth; moreover, through procurement management they can drive down cost while also avoiding unnecessary material delays and errors.

2.5. Research Findings

Supply management is the integral part of the overall material inflow management without which healthy business functioning and proper service delivery is no longer possible. According to Hankebo (2019), the overall tasks of procurement are to obtain goods, works, consultancy services and other services at the right quality, in the right quantity, from the right sources, at the right time, place and price to achieve organizational objectives. A study conducted by Basheka (2009) has stated that in many third world nations due attention is not given to effective supply management and as result there are widespread negligence in material follows management. A study conducted by Tirualem and Amanpreet (2020) on material management in higher education of Ethiopia have concluded that a bigger chunk of country's GDP were routinely allotted to tertiary education however, millions of these allotment had been lost due to poor supply management. A study by Quayle (2001), he suggested that supply chain management is the lifeblood of any organization to be effective and achieve its founding mission. Moreover, A huge amount of fund was endowed to the higher education/ public universities in Ethiopia. However, these institutions were characterized by poor quality of education, weak in research outputs and inflexible administrative train (Walker & Brammer, 2009). Public universities in Ethiopia are affected by poor procurement and budget deficit with poor quality material goods where staffs are tremendously complaining about the quality of procured goods and services; hence the purchased items are mostly below the quality specifications which in turn created a verily observable impact on service delivery (Tirualem & Amanpreet, 2020). Consequently the universities remain weak in research output, quality education provisions as well as community service delivery.

None of the public higher education institutions are adequately addressed the procurement issues, its proper practice and the basic impediments of public procurement functioning in public Universities of Ethiopia (Chekol & Tilahun,

2014). Therefore, these and many other factors had negatively affected the universities material supply management and property welfare and utilization for the very purposes which in turn created delays and had opened a door for a day light corruptions.

Thus the major mismanagement for procurement in higher education takes place from the planning to the end user storing of goods and service that when and how the material is ordered, identifying and selecting suppliers through either for approved vendors or cost based preference relationships, contracting and conditioning fulfillments, purchase order and expediting product, specifications of quality standards and proper recording are all defaulted which in turn resulted the poor quality service and open corruptions for public properties.

In most public institutions, the legal framework delays the procurement process due to its bureaucratic and its suitability for corruption (Kirui & Wanyoike, 2015), in this regard, despite poor practice of material and supplied management in Ethiopian higher education's, the institutions were highly criticized by weak quality service delivery and dread corruptions for public properties.

A study conducted by Hankebo (2019) on higher education material and asset management concluded that educational materials management and utilization practices are inefficient and ineffective that demands urgent interventions from all respective officials. A study conducted also by Awoke (2020) reveals that material inflow and management in higher education in Ethiopia are highly corrupted and need intervention while the study also suggested the amendment of current public property laws and proclamations as well as amending the existing public organizations' structure and management.

3. Conclusion

Material supplied management is the amount of required items from supplier to the receiving organizations either based on approved vender or price-based inclination. Therefore, material supply management encompasses all activities related to material requirements to ensure the timely supply of the optimized amounts and standard quality for later use and management. Therefore, the main objective of material supply management is securing the right material at the right time in the right amount.

Consequently, effective material management is indispensable and vital for realization of higher education's core objectives namely research output and scientific publications, quality teaching and deliberate community service engagements, as a result, higher education's material management should clearly reflect proper procurement and purchasing order, supplier selection, material storage, distributions and utilization and continues inventory control and proper exploit for its maximum value.

However, various research on material management in Ethiopia's higher education suggested that higher education's materials management and utilization

practices are inefficient and ineffective which demands urgent interventions; moreover, another study indicates that the system is highly corrupted and needs urgent interventions for amendment both in terms of structure and policy perspective.

Therefore, material and supplied management is highly neglected in Ethiopia's higher education which in turn exacerbated the service quality and research outputs of the institutions. Despite huge funding endowed to these institutions, they were characterized by poor performance and corruption. Material management is central to the procurement of items from the product market to the end user's consumption; however, the whole system was crippled by poor planning, procurement swindle, corruption, and identification of potential supplier for quality material inflow.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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